

<https://helda.helsinki.fi>

---

# Neonaticide in the Courtroom Room for Improvement? Conclusions Drawn from Austria and Finland's Register Review

Amon, Sabine

2020-01

---

Amon, S., Klier, C. M., Putkonen, H., Weizmann-Henelius, G. & Fernandez Arias, P. 2020, 'Neonaticide in the Courtroom Room for Improvement? Conclusions Drawn from Austria and Finland's Register Review', Child Abuse Review, vol. 29, no. 1.

---

<http://hdl.handle.net/10138/313155>

<https://doi.org/10.1002/car.2589>

---

unspecified

publishedVersion

---

*Downloaded from Helda, University of Helsinki institutional repository.*

*This is an electronic reprint of the original article.*

*This reprint may differ from the original in pagination and typographic detail.*

*Please cite the original version.*

# Neonaticide in the Courtroom – Room for Improvement? Conclusions Drawn from Austria and Finland's Register Review

This study analyses the psychological, clinical and criminal characteristics of neonaticide focusing on court verdicts with the aim of formulating recommendations for judicial guidelines. This study was register based, comprising all known neonaticides in Austria and Finland between 1995 and 2005. The cases ( $n = 28$ ) were obtained by screening death certificates from coroner departments and analysing them alongside all further reports available. Five out of 21 convicted offenders were imprisoned with an average sentence of 1.65 years. A mental disorder, at the time of the offence, was diagnosed in half of the offenders (9/18) who underwent forensic examination. Of the total offenders, 14 were deemed responsible for the crime, one was deemed to have had diminished responsibility and three were considered not responsible for the crime. The main motive, determined by court evaluation, was an 'unwanted child', followed by 'no motive', 'fear of abandonment or a negative response from others' and 'mental overload'. The rate of repeated neonaticide was 13 per cent. Considering the rate of mental illness within the neonaticide offenders, we would recommend a treatment detention order instead of imprisonment or non-prosecution, as well as state-of-the-art guidelines for the court.

## KEY PRACTITIONER MESSAGES:

- Autopsies should be conducted for all suspected neonaticides.
- Forensic examinations should be performed by experts with knowledge and experience of neonaticide.
- There should be standardised forensic examinations using structured psychiatric and psychological methods by two independent experts.
- Neonaticide cases should be tried in specialised courts.
- A psychiatric treatment order should be made for all neonaticide offenders as a preventive measure to reduce reoffending and address the high psychological burden.

KEY WORDS: Austria; Finland; legal outcomes; mental health; neonaticide

\*Correspondence to: Claudia M. Klier, Department of Paediatrics and Adolescent Medicine, Medical University of Vienna, Wachringerguertel 18-20, 1090 Vienna, Austria. E-mail claudia.klier@meduniwien.ac.at

## Sabine Amon

Faculty of Psychology, University of Vienna, Vienna, Austria

## Claudia M. Klier\*

Department of Paediatrics and Adolescent Medicine, Medical University of Vienna, Vienna, Austria

## Hanna Putkonen

Department of Psychiatry, Helsinki University Hospital, Helsinki  
Vanha Vaasa Hospital, Vaasa, Finland

## Ghitta Weizmann-

## Henelius

Department of Paediatrics and Adolescent Medicine, Medical University of Vienna, Vienna, Austria  
Department of Psychology and Logopedics, Åbo Akademi University, Turku, Finland

## Paula Fernandez

## Arias

Monash Deakin Filicide Research Hub, Department of Social Work, Monash University, Melbourne, Victoria, Australia

**'Analyses the psychological, clinical and criminal characteristics of neonaticide focusing on court verdicts'**

**‘Forensic psychiatrists argue that neonaticide develops more from fear and social isolation than from ‘cold’ premeditation’**

**‘Few countries, including Austria and Finland, have specific legislation concerning the phenomenon of neonaticide’**

## Introduction

In 2017, the global rate of neonatal mortality was 18 deaths per 1000 live births (UNICEF *et al.*, 2018). Aside from the risk of mortality by illness, malnutrition or birth complications, there is also a high risk for an infant to become the victim of a homicide (Ellonen *et al.*, 2015). The death of a child at the hands of their parent(s) is commonly referred to as filicide (Resnick, 1969). Despite infanticide and neonaticide being classified as subcategories of filicide, where infanticide refers to the killing of a child under 12 months of age and neonaticide is the killing of a newborn within the first 24 hours of life, they are distinctly different events.

Initially, neonaticidal mothers were described as young, poor, unmarried, uneducated and with high levels of mental health issues, however, further research has found that the incidence of mental health issues is lower than commonly believed, but that there is a higher rate of personality disorders (Amon *et al.*, 2012). Forensic psychiatrists argue that neonaticide develops more from fear and social isolation than from ‘cold’ premeditation (Linzer Schwartz and Isser, 2001). The infanticide rate (<1 year) has decreased in most European countries since the 1960s, whereas the neonaticide rate (<24 hours) has remained stable over the decades (Ellonen *et al.*, 2015). In Finland and Austria, for example, it comprises between 66 and 80 per cent of all infanticides (Ellonen *et al.*, 2015).

The explanation for such a difference may lie in a concrete difference in incidence or it may be due to the hidden nature of this crime where the true rates are often unknown. Bodies may go undetected, autopsies lacking or a wrong classification for the cause of death may be given such as sudden infant death syndrome (Klier *et al.*, 2019; Rougé-Maillert *et al.*, 2005; Stanton and Simpson, 2001; Tanaka *et al.*, 2017).

This paper analyses the psychological, clinical and criminal characteristics of all neonaticide cases in Austria and Finland between 1995 and 2005 focusing on court verdicts with the aim of formulating recommendations for judicial guidelines. This study found that forensic psychiatric or psychological evaluations for offenders were not carried out as a matter of course and that there was no standardised process for autopsies of suspected neonaticides. This, in turn, may explain the disparity in sentencing outcomes for neonaticide offenders in this sample.

## Neonaticide and the Law

Few countries, including Austria and Finland, have specific legislation concerning the phenomenon of neonaticide (Linzer Schwartz and Isser, 2001). The Austrian legislation, for example, states that ‘... a mother, who kills her child during delivery or as long as she is influenced by the process of giving birth, should be punished with ...’ one to five years of imprisonment (Doralt, 2017, p. 27). In Finland, imprisonment for this crime extends from four months to four years (Ministry of Justice, 2008). In 27 countries, the above legislation is more commonly known as the Infanticide Code (Flynn *et al.*, 2007) with the exception of the USA, where the establishment of the

infanticide law was discussed but never introduced to the legislation (Flynn *et al.*, 2007). Recently, one US state has changed this (Spinelli, 2019) and there is hope that others will follow. Detractors of infanticide laws argue that infanticide legislation is at best unnecessary and at worst misapplied (Hatters Friedman *et al.*, 2012). This trend has also been extended to some European countries, like Germany and France, where the special neonaticide paragraph of the homicide law was abolished despite criticism from many experts in the field (see, for example, Bejarano Alomia, 2008).

The German legislature justified its decision to eliminate the infanticide code arguing that defendants can claim there were mitigating factors associated with the crime; however, there has been discussion to reintroduce the infanticide legislation (Bejarano Alomia, 2008). The Austrian legislation, for example, recognises 20 mitigating factors such as the offender's age (<21 years), extenuating circumstances and a voluntary plea of guilty or clear expressions of remorse (Doralt, 2017). Nonetheless, the killing of one's own child remains one of society's most misunderstood crimes making the existence of mitigating factors a poor fit for a defence of diminished responsibility.

The sentencing decision depends on the intention of the crime, motives and the mental health status of the offender. Although for the latter, a forensic psychiatric examination is a prerequisite for diagnosis, evidence from this study, and others, shows that not all offenders underwent such an examination. Different studies report varying rates for carrying out forensic psychiatric examinations, from 35 to 78 per cent (Amon *et al.*, 2012; Flynn *et al.*, 2007; Putkonen *et al.*, 2007a; Rougé-Maillert *et al.*, 2005).

## Mental Health Status

In Austria, forensic psychiatric examinations to diagnose mental health status at the time of the offence in order to discern between diminished, full or no responsibility are carried out by independent clinical psychiatrists and psychologists working for the government before judgment is passed (Doralt, 2017). A perpetrator who is found not responsible (not guilty by reason of insanity) for the crime, because they are not able to understand the unlawfulness of their actions or if they are not able to act on this discernment, must be sentenced to a hospital detention order instead of imprisonment. If the offender is found to have diminished responsibility (not able to act on discernment), they must be sentenced to imprisonment and a hospital detention order (Doralt, 2017). The definition of diminished or no responsibility is the same in Finland (Eronen *et al.*, 2012), but without the same sentencing outcomes; diminished responsibility can result in a less severe sentence.

Most countries, including Austria, do not have state-of-the-art guidelines for forensic examinations. For example, in the UK, there has not been any mandatory psychiatric assessment for homicide offenders since 2001 (Flynn *et al.*, 2007). Flynn *et al.* (2007) found that the main factors predicting a hospital detention order, which was based on forensic examination, were a diagnosis of schizophrenia, any mental illness at the time of the offence, recent contact with health services during their lifetime and being a member of a minority ethnic group.

**‘Detractors of infanticide laws argue that infanticide legislation is at best unnecessary and at worst misapplied’**

**‘Most countries... do not have state-of-the-art guidelines for forensic examinations’**

**‘No descriptions in the existing neonaticide literature of the offender's behaviour immediately after the crime’**

**‘We identified 28 neonaticide cases with a court file’**

In Finland, the court orders a forensic examination, which is guided and evaluated by the Forensic Psychiatric Board of the National Institute for Health and Welfare Finland (2017). This institution also gives its statement to the court (Putkonen *et al.*, 2003). The standardised forensic psychiatric examination is an extensive assessment (maximum of 2 months) including interviews by a psychiatrist, an evaluation of physical condition, an assessment by a psychologist using standardised psychological tests and observation by hospital staff. The forensic psychiatrist assesses the putative mental disorder and the possible impact of the disorder on the offence.

### **Crime Motives and Methods**

Despite the high number of neonaticide studies, most of them have focused on offender descriptions and the reasons associated with pregnancy negation (such as the age of offender, education level, unplanned pregnancy, presence of fear of abandonment) but not on the offence motives (Amon *et al.*, 2012; Friedman and Resnick, 2009; Herman-Giddens *et al.*, 2003; Mendlowicz *et al.*, 1999; Putkonen *et al.*, 2007a, 2007b; Spinelli, 2001) that are important for the court and the verdict. In the literature, offence methods were described as variations of asphyxiation (suffocation, strangulation, drowning) and head trauma, and the offence was mostly carried out at home (Rougé-Maillert *et al.*, 2005; Herman-Giddens *et al.*, 2003). There were no descriptions in the existing neonaticide literature of the offender's behaviour immediately after the crime nor records about the presence of other persons during the crime. The present study focuses on the offence characteristics (place, method, motives), the offender's diagnosis and on the extent that these variables influence the juridical outcome.

### **Methods**

#### ***Sample***

In two European countries, namely Austria and Finland, all-known neonaticide cases for the decade between 1995 and 2005 were collected from a database including all filicides for that period and analysed. The collection of data started with screening of the coroners' reports and death certificates from Coroner Institutions of Austria and Statistics Finland. Within these processes, court files from the Department of Justice (Austria), police files of criminal variables, hospital reports of the offender's treatment history and forensic psychiatric examination reports were reviewed. We identified 28 neonaticide cases with a court file.

Ethical approval was granted by the following agencies. Austria: Austrian Ethics Commission, Department of Justice and Medical University of Vienna; Finland: Ministry of Social Affairs and Health, Ministry of the Interior, Office of the Data Protection Ombudsman, Ethics Committee for Paediatrics and Adolescent Medicine and Psychiatry of Helsinki University Central Hospital (see also Putkonen *et al.*, 2009). A systematic investigation like our register-based study of neonaticide was not possible in other European countries owing

to the lack of comparable data, which will probably further underestimate the global neonaticide rate.

### *Comparative Analysis of Two Countries*

We established variables based on previous literature and collected information on the offender's history in terms of education, social standing, relationships, past criminal records, health status, stress factors, pregnancy concerns and legal issues (for an in-depth description of the original study refer to Putkonen *et al.*, 2009). The motives for the offence, as well as the offence method and place, were investigated. The motives were ranked by their frequency of occurrence and multiple naming was possible. The offender's mental health status at and after the crime, responsibility for the crime and the verdict were also analysed.

The consistency of coding was undertaken by one coder in Austria (SA) and two coders in Finland (HP, GWH). Before the real-case rating, the coders were trained to rate based on two short-version cases from the UK. We included only variables with good agreement ( $\kappa = 1.0\text{--}0.75$ ). The inter-rater agreement was calculated using kappa for the three raters (Randolph, 2008; Wirtz and Caspar, 2002). The inter-rater coefficients were sound according to the guidelines provided by Cicchetti (1994). The statistical package SPSS 15.0 (SPSS Inc., Chicago, IL) was used for all data analysis. The data, as well as the health service and forensic systems in Austria and Finland, were similar enough to allow a comparative analysis (Putkonen *et al.*, 2009).

### **Results**

There were 28 cases of neonaticide committed by 23 offenders. One offender was responsible for four cases and two offenders for two cases each; these repeated neonaticides were observed only in Austria.

### *Circumstances of the Offence*

In all cases ( $n = 28$ ), the offence place was also the place of delivery. The offences took place in the shower or the toilet in 23 of the 28 cases. In those cases where other people with no awareness of the delivery were present in the household ( $n = 10$ ), the toilet was the place of delivery and the offence. If the offender was alone, the shower, the bedroom, the toilet or elsewhere in the house was the delivery and the offence place. Only in one case was another person (the mother of the offender) present at the delivery and participated in the offence.

The methods of killing were suffocation, drowning, neglect, strangulation and throwing against the wall. In one case, the coroner was not able to determine the method owing to advanced decomposition. The behaviour immediately after the offence was characterised by a short period of respite, then hiding the body at home (freezer, bag, wardrobe, garden), covering up the event and going to work. In one case, a person was called for help.

**'The motives for the offence, as well as the offence method and place, were investigated'**

**'In all cases ( $n = 28$ ), the offence place was also the place of delivery'**



**‘Eighteen of the 23 offenders were examined for putative responsibility at the time of the offence by forensic psychiatrists and/or psychologists’**

**Table 1.** Crime motives of neonaticide offenders identified by the court

Crime motives	Court reports	
	<i>n</i>	(%)
Unwanted child	11	(26.8)
No motive	9	(21.9)
Fear of abandonment/negative response from others	7	(17.1)
Mental overload/powerlessness	5	(12.2)
Religious/cultural/shame	3	(7.3)
Economic motive	2	(4.9)
Quarrel/foreseeing quarrel, problems	1	(2.4)
Impulsive act	2	(4.9)
Fear of death because of paternal threat	1	(2.4)
Psychotic motive	0	(0)

Motives for the offence showed variation (Table 1) probably owing to the multiple sources considered by the court, variations in the police reports, forensic examination and the motives concluded during the trial.

### *Juridical Responsibility*

Eighteen of the 23 offenders were examined for putative responsibility at the time of the offence by forensic psychiatrists and/or psychologists (Table 2). Three offenders did not undergo any assessment and two offenders (one of whom was a repeat offender) died immediately after the offence because of a complicated delivery.

Of the three offenders who had not undergone a forensic psychiatric examination, none had a motive identified by the court for the offence: two offenders were not prosecuted and one offender received a conditional charge (a fine).

There were ten offenders who showed a deterioration in their mental health status after the offence, namely, additional psychotic or affective symptoms which were not present at the time of the offence. One such offender obtained a prison sentence and the remaining nine offenders were not sentenced to imprisonment.

In seven cases, offenders were never diagnosed nor did they have any symptoms. In these cases, the court identified the main motives for the offence as ‘fear of abandonment/negative response from others’, ‘mental overload/powerlessness’ or ‘no motive’ at all.

**Table 2.** Diagnosis and responsibility of neonaticide offenders

	Diagnosis		Responsibility		
	At offence <sup>a</sup>	After offence <sup>b</sup>	Full	Diminished	No
	( <i>n</i> = 18)	( <i>n</i> = 18)	( <i>n</i> = 14)	( <i>n</i> = 1)	( <i>n</i> = 3)
	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)
Personality disorder	6 (33)	6 (33)	4 <sup>c</sup> (29)	1 <sup>c</sup> (100)	1 (33)
Psychotic disorder	2 (11)	2 (11)	1 (7)	—	1 (33)
Mood disorder	1 (6)	6 (33)	1 (7)	—	—
No diagnosis	9 (50)	4 (22)	8 (57)	—	1 (33)

<sup>a</sup>Diagnosis at offence examined by forensic experts.

<sup>b</sup>Diagnosis/psychological reaction after offence/during investigation examined by forensic experts.

<sup>c</sup>Consecutive offenders.

**Table 3.** Verdicts (sentence and time in years) in neonaticide cases: imprisonment versus other juridical consequences

Sentence	Juridical consequences					
	Not prosecuted		Conditional charge		Imprisonment	
	(n = 7)		(n = 9)		(n = 5)	
	n (%)	Years $\bar{x}$	n (%)	Years $\bar{x}$	n (%)	Years $\bar{x}$
Not charged	6 (29)	0	—	—	—	—
Neonaticide	1 (5)	0	6 (29)	1.38	4 <sup>b</sup> (19)	1.65
Involuntary manslaughter	—	—	3 (14)	0.44 <sup>a</sup>	—	—
Murder	—	—	—	—	1 <sup>c</sup> (5)	>20

<sup>a</sup>One offender received a fine of €250.

<sup>b</sup>Consecutive offender verdict: 4.48 years and a hospital detention order (unlimited).

<sup>c</sup>Consecutive offender verdict: lifelong imprisonment and a hospital detention order (unlimited).

The verdicts for the surviving 21 offenders ranged between not charged and one lifelong sentence (Table 3). Five offenders were imprisoned; the motive established by the court was unwanted child (4/5) and only one offender showed a deterioration in their mental health status. In addition to the neonaticide offenders, one father (partner of a repeat offender) was sentenced to 15 years of imprisonment, without participation in or presence at the time of the crime, and one participating mother (of a different offender) was sentenced to ten years of imprisonment for murder.

## Discussion

The main findings in our research show that a quarter of the offenders received an imprisonment sentence whereas a third of the offenders were not prosecuted. Eighteen offenders underwent a forensic psychiatric/psychological evaluation, three did not undergo any kind of evaluation and two died shortly after the offence. Half of the examined offenders were diagnosed with a mental disorder at the time of the offence and ten offenders showed a deterioration in their mental health after the offence.

The main motives concluded by the court were an 'unwanted child' in slightly more than a quarter of the cases, followed by 'no motive' in a fifth and 'fear of abandonment/negative response from others' also in slightly less than a fifth of the offenders. We identified ten cases where other persons from the social network of the offender were present at the premises at the time of the offence but did not notice anything. The offender's immediate behaviour after the offence was characterised by hiding the body and covering up the event. The juridical outcome varied from not prosecuted to lifelong sentences, whereas the two surviving repeat offenders received an additional hospital detention order.

While studies such as this one are important in furthering our understanding of rare events like neonaticide, there are limitations to the study and the data and results should be used cautiously. One of the more evident limitations of this study is the, still, unknown rate and hidden nature of neonaticide (Tanaka *et al.*, 2017; Rougé-Maillert *et al.*, 2005; Stanton and Simpson, 2001). Neonatal deaths can be misidentified or simply hidden without ever being

**'A quarter of the offenders received an imprisonment sentence whereas a third of the offenders were not prosecuted'**

**'Neonatal deaths can be misidentified or simply hidden without ever being discovered generating bias in the sample'**



**‘When a newborn body is found, there should be a mandatory autopsy carried out by a specialised coroner department’**

**‘Mental health status was an important factor in our study’**

discovered generating bias in the sample. This feature of the data also affects the size of the sample and the generalisability of the findings.

### ***Autopsies of All Suspected Neonaticides***

Neonaticide is a hidden crime for many reasons: the pregnancy as well as the offence go unnoticed by social surroundings. Our previous study revealed that, in ten cases, someone was present at the premises when the birth and the offence happened but he/she was not aware of anything (Amon *et al.*, 2012). The offender's behaviour directly after the birth was characterised by covering up the event and hiding the small and totally unknown body in or near the home (Amon *et al.*, 2012).

Previous epidemiological studies (Flynn *et al.*, 2007; Herman-Giddens *et al.*, 2003; Putkonen *et al.*, 2003) have suggested that an incorrect coroner's ruling of the cause of death may be one reason for the underestimated neonaticide rate. Therefore, when a newborn body is found, there should be a mandatory autopsy carried out by a specialised coroner department (Schulte *et al.*, 2013).

Until the Austrian Coroner Law changed in 2007, the rules for autopsies were clearly defined, centralised and compulsory (Hochmeister *et al.*, 2007). Specially educated coroners were assigned to find the cause of death in suspected cases of neonaticide. After the revision of the legislation, the number of unambiguous cases, which were automatically allocated to coroners, did not change. However, the number of ambiguous cases, which were previously investigated by the police and public health officers, dropped from 1500 to 50 per year due to financial reasons. We contend that these unclear cases may likely be misidentified cases of neonaticide owing to the lack of appropriate and specialised autopsies. Additionally, autopsies are now performed by ordinary pathologists who lack the required specialisation. Generally, autopsies were only conducted if an ‘important reason for public health care (§ 12) was given’ (Hochmeister *et al.*, 2007, p. 26). In Finland, the situation is similar to the one in Austria, where the court needs a clear pathology report to have enough evidence to prosecute offenders.

### ***Standardised Forensic Psychiatric Examinations***

If the courts have enough evidence to prosecute these crimes, then they need experts with experience and knowledge in assessing the offenders to understand the circumstances of these crimes so that they can determine the best judgment considering the offender, the victim and society. Because the infanticide code is based on the existence of exceptional circumstances at delivery, retrospectively determined by forensic psychiatrists and psychologists, mental health status was an important factor in our study.

Evidence gathered in this study, however, shows that not all offenders underwent this kind of psychiatric examination, similar to the findings gathered by other researchers (Putkonen *et al.*, 2007a; Flynn *et al.*, 2007). Nine out of 18 offenders who underwent a forensic psychiatric assessment were diagnosed with a psychiatric disorder (personality disorder, psychosis, mood disorder) at the time of the offence. However, only four offenders were regarded as having diminished or no responsibility for their crime. Of interest is that one

offender diagnosed with psychosis was held responsible, whereas one with no diagnosis was considered not responsible for the crime.

This variability depicts the very problem of neonaticide in different legal and medical processes. Neonaticides are rare but multifaceted incidents, and judges might encounter only a few or even a single case during their professional lives, making the application of the law without the appropriate training and background information an erratic exercise. Or as Putkonen *et al.* (2007a, p. 253) argue:

‘Due to the rare occurrence of neonaticides, there is no established pattern for investigating and trying the cases. Hence, everything during the legal process may vary starting from the pathological reports and, even the psychological and social aspects may be emphasised differently depending on the moral assumptions of the individual authorities involved. The jurisprudence with regard to child deaths is complicated, and perhaps current legal process is not the most suitable way to handle these cases.’

We recommend that the investigation of suspected neonaticides be carried out by specialists with knowledge and experience of these crimes to ensure best practice, as there is, for example, with sexual homicides. This process should be clearly defined, standardised and structured, and the circumstances of the pregnancy (motives of negation, social situation, pregnancy-related factors) and the pathology of childbirth (Brockington, 1996) should be assessed. Furthermore, it is necessary to assess: the offender's history of mental illness (specifically in respect to trauma and abuse); the offender's mental health status at the time of the offence and after the offence; the offender's criminal responsibility; and in some cases also the risk of repeat offences. The accountability for the examination should be assumed by more than one expert and should be done pre-trial.

We also suggest that psychiatric examination should follow standardised forensic procedure using structured psychiatric and psychological methods. The examiners should be given advanced, and ongoing, training in the phenomenon of neonaticide and enough resources (time, finance) for the evaluation.

The range of sentences for the crime should be consistent. The range of given sentences for neonaticide was high in our study, going from no charge to lifelong imprisonment. This variability has already been reported in a case series of 115 cases from the USA with sentences ranging from community service to 25 years of prison (Linzer Schwartz and Isser, 2006). Only in ten cases was reference made to psychiatric treatment or counselling as part of the sentence (Linzer Schwartz and Isser, 2006).

The sentences of single offenders in our study seem to bear no relation to those who were repeat offenders. Furthermore, the two surviving repeat offenders were sentenced very differently (4.48 years vs. lifelong imprisonment). These inconsistencies among the verdicts may likely reflect the rarity of the offence and the court's inexperience with this kind of crime.

The analysis of the verdicts regarding the mental status and the motive also showed some interesting details: the mental health status of offenders whose main motive was an ‘unwanted child’ and who were sentenced to unconditional imprisonment did not deteriorate after the crime. The offenders who were not convicted either showed a psychological reaction after the crime or were found to have acted out of ‘mental overload’ or ‘no motive’. The offenders with

**‘We recommend that the investigation of suspected neonaticides be carried out by specialists with knowledge and experience of these crimes’**

**‘The sentences of single offenders in our study seem to bear no relation to those who were repeat offenders’**

**‘Treatment seems most purposeful to prevent repeat offending’**

conditional imprisonment showed a psychological reaction and ‘fear of abandonment’ as motive.

Comprehensible or in the heat-of-the-moment motives, which were defined as mitigating grounds, and a deterioration in mental health status, which could be interpreted as a feeling of remorse, may explain the different verdicts. Furthermore, the circumstances of criminal actions (planning, place, method, immediate behaviour after the event) also have been shown to be important for the court and have an influence on the verdict (Linzer Schwartz and Isser, 2001).

### ***Treatment Order***

Infanticide law considers the special circumstances of delivery as mitigating grounds for the offending mother, which suggests a belief in dissociative actions rather than premeditated ones. Half of the examined offenders held a psychiatric diagnosis after the forensic examination, but only two received a hospital detention order additional to their imprisonment time, as per Austrian law. If the jurisdiction of a country has the option of a treatment order instead of imprisonment or as a provision of a conditional sentence, it should be preferred over non-prosecution or imprisonment only.

Notably, in view of the existence of repeated neonaticide offences (Klier et al., 2019) and the high rate of fertility within neonaticide offenders (Amon et al., 2012), treatment seems most purposeful to prevent repeat offending. The first step for countries without a neonaticide law could be to include treatment into their juridical framework and a second step would be to implement the recommendations made by this paper (see below).

### **Conclusion**

The results of the present study underline the uniqueness of neonaticide within homicide offences and indicate a need for special recommendations:

1. Autopsies should be conducted for all suspected neonaticides.
2. Forensic examinations should be performed by experts with knowledge and experience of neonaticide (important as it is a rare event).
3. There should be standardised forensic examinations using structured psychiatric and psychological methods by two independent experts.
4. Neonaticide cases should be tried in specialised courts.
5. A psychiatric treatment order should be made for all neonaticide offenders as a preventive measure to reduce reoffending and address the high psychological burden.

### **References**

- Amon S, Putkonen H, Weizmann-Henelius G, Almiron MP, Formann AK, Voracek M, Eronen M, Yourstone J, Friedrich M, Klier CM. 2012. Potential predictors in neonaticide: The impact of the circumstances of pregnancy. *Archives of Women's Mental Health* **15**: 167–174. <https://doi.org/10.1007/s00737-012-0268-0>.
- Bejarano Alomia PP. 2008. Kindstötung: kriminologische, rechtsgeschichtliche und rechtsvergleichende Überlegungen nach Abschaffung des 217 StGB Af. Freien Universität Berlin: Berlin.
- Brockington IF. 1996. *Motherhood and Mental Health*. Oxford University Press: Oxford.

- Cicchetti DV. 1994. Guidelines, criteria, and rules of thumb for evaluating normed and standardized assessment instruments in psychology. *Psychological Assessment* **6**(4): 284–290. <https://doi.org/10.1037/1040-3590.6.4.284>.
- Doralt W (Ed). 2017. *Kodex des österreichischen Rechts – Strafrecht* [Criminal Code of Austria - Criminal Law], 47th edn. LexisNexis Verlag ARD Orac GmbH & CoKG: Vienna.
- Ellonen N, Kääriäinen J, Lehti M, Aaltonen M. 2015. Comparing trends in infanticides in 28 countries, 1960–2009. *Journal of Scandinavian Studies in Criminology and Crime Prevention* **16**(2): 175–193. <https://doi.org/10.1080/14043858.2015.1038905>.
- Eronen M, Seppänen A, Kotilainen I. 2012. Forensic psychiatry in Finland. *The Nordic Psychiatrist* **1**: 20–21.
- Flynn SM, Shaw JJ, Abel KM. 2007. Homicide of infants: A cross-sectional study. *The Journal of Clinical Psychiatry* **68**: 1501–1509.
- Friedman SH, Resnick PJ. 2009. Neonaticide: Phenomenology and considerations for prevention. *International Journal of Law and Psychiatry* **32**: 43–47. <https://doi.org/10.1016/j.ijlp.2008.11.006>.
- Hatters-Friedman S, Cavney J, Resnick PJ. 2012. Mothers Who Kill: Evolutionary Underpinnings and Infanticide Law. *Behavioral Sciences & the Law* **30**: 585–597. <https://doi.org/10.1002/bsl.2034>.
- Herman-Giddens ME, Smith JB, Mittal M, Carlson M, Butts JD. 2003. Newborns killed or left to die by a parent: A population-based study. *JAMA* **289**: 1425–1429. <https://doi.org/10.1001/jama.289.11.1425>.
- Hochmeister M, Grassberger M, Stimpfl T (Eds). 2007. *Forensische Medizin* [Forensic Medicine]. Maudrich GmbH & CoKG: Vienna.
- Klier CM, Amon S, Putkonen H, Fernandez Arias P, Weizmann-Henelius G. 2019. Repeated neonaticide: Differences and similarities to single neonaticide events. *Archives of Women's Mental Health* **22**: 159–164. <https://doi.org/10.1007/s00737-018-0850-1>.
- Linzer Schwartz L, Isser NK. 2001. Neonaticide: An appropriate application for therapeutic jurisprudence? *Behavioral Sciences & the Law* **19**: 703–718. <https://doi.org/10.1002/bsl.466>.
- Linzer Schwartz L, Isser NK. 2006. *Child Homicide: Parents Who Kill*. CRC Press: Boca Raton, FL.
- Mendlowicz MV, Jean-Louis G, Gekker M, Rapaport MH. 1999. Neonaticide in the city of Rio de Janeiro: Forensic and psycholegal perspectives. *Journal of Forensic Sciences* **44**(4): 741–745. <https://doi.org/10.1520/JFS14547J>.
- Ministry of Justice. 2008. Criminal Code. Finland [Online]. Available: <http://www.finlex.fi/en/laki/kaannokset/1889/en18890039> [18 March 2019].
- National Institute for Health and Welfare Finland. 2017. *Statistics on Forensic Psychiatry* [Online]. National Institute for Health and Welfare: Helsinki. Available: <https://thl.fi/en/web/mental-health/mental-health-services/forensic-psychiatry/statistics> [18 March 2019].
- Putkonen H, Amon S, Almiron MP, Yourstone-Cederwall J, Eronen M, Klier MC, Kjelsberg E, Weizmann-Henelius G. 2009. Filicide in Austria and Finland - a register-based study on all filicide cases in Austria and Finland 1995–2005. *BMC Psychiatry* **9**: 74. <https://doi.org/10.1186/1471-244X-9-74>.
- Putkonen H, Collander J, Weizmann-Henelius G, Eronen M. 2007a. Legal outcomes of all suspected neonaticides in Finland 1980–2000. *International Journal of Law and Forensic Psychiatry* **30**: 248–254. <https://doi.org/10.1016/j.ijlp.2007.03.008>.
- Putkonen H, Komulainen EJ, Virkkunen M, Eronen M, Lönnqvist J. 2003. Risk of repeat offending among violent female offenders with psychotic and personality disorders. *The American Journal of Psychiatry* **160**(5): 947–951. <https://doi.org/10.1176/appi.ajp.160.5.947>.
- Putkonen H, Weizmann-Henelius G, Collander J, Santtila P, Eronen M. 2007b. Neonaticides may be more preventable and heterogeneous than previously thought - neonaticides in Finland 1980–2000. *Archives of Women's Mental Health* **10**(1): 15–23. <https://doi.org/10.1007/s00737-006-0161-9>.
- Randolph JJ. 2008. Online Kappa Calculator. Available: <http://justusrandolph.net/kappa/> [24 June 2011].
- Resnick P. 1969. Child Murder by Parents: A Psychiatric Review of Filicide. *American Journal of Psychiatry* **126**: 325–334.
- Rougé-Maillert C, Jousset N, Gaudin A, Bouju B, Penneau M. 2005. Women Who Kill Their Children. *The American Journal of Forensic Medicine and Pathology* **26**: 320–326. <https://doi.org/10.1097/01.paf.0000188085.11961.b2>.

- Schulte B, Rothschild MA, Vennemann M, Banaschak S. 2013. Examination of (suspected) neonaticides in Germany: A critical report on a comparative study. *International Journal of Legal Medicine* **127**(3): 621–625. <https://doi.org/10.1007/s00414-013-0841-8>.
- Spinelli M. 2001. A systematic investigation of 16 cases of neonaticide. *The American Journal of Psychiatry* **158**(5): 811–813. <https://doi.org/10.1176/appi.ajp.158.5.811>.
- Spinelli M. 2019. Infanticide and American criminal justice (1980-2018). *Archives of Women's Mental Health* **22**: 173–177. <https://doi.org/10.1007/s00737-018-0873-7>.
- Stanton J, Simpson A. 2001. Murder misdiagnosed as SIDS: A perpetrator's perspective. *Archives of Disease in Childhood* **85**(6): 454–459. <https://doi.org/10.1136/ad.85.6.454>.
- Tanaka CT, Berger W, Valença AM, Coutinho ESF, Jean-Louis G, Fontenelle LF, Mendlowicz MV. 2017. The worldwide incidence of neonaticide: A systematic review. *Archives of Women's Mental Health* **20**(2): 249–256. <https://doi.org/10.1007/s00737-016-0703-8>.
- UNICEF, World Health Organization, World Bank Group, United Nations. 2018. *Levels & Trends in Child Mortality. Report 2018. Estimates developed by the UN Inter-agency Group for Child Mortality Estimation*. UNICEF: New York, Geneva.
- Wirtz M, Caspar F. 2002. *Beurteilerübereinstimmung und Beurteilerreliabilität - Methoden zur Bestimmung und Verbesserung der Zuverlässigkeit von Einschätzungen mittels Kategoriensystemen und Ratingskalen* [Rater-Consistency and Rater-Reliability - Methods for Defining and Improving the Reliability of Assessments Through the Use of a Categorical Classification Systems and Rating Scales]. Hogrefe Verlag: Göttingen, Bern, Toronto, Seattle.